services,[28] and has proven itself an efficient mechanism for expediting the introduction of service to the public.[29]

Once the lottery is completed, it is critical that the Commission rapidly review the applications of the tentative selectees and the alternative tentative selectees and process those applications to grant or dismissal. In the past, the Commission has been quite liberal in permitting tentative selectees to amend their applications to bring them into compliance with the Commission's rules. WCA suggests, however, that that policy has worked to the disadvantage of the wireless cable industry, as it has facilitated the warehousing of spectrum. Therefore, WCA proposes a stricter approach. If the Commission adopts WCA's suggestion and reduces the level of scrutiny afforded applications prior to the lottery, it should bar any tentative selectee from amending its application post-lottery if the application is defective under the standards of Section 21.20(a)(1) and (2) after expiration of the fourteen day period under current Section 21.23(a), in which a MMDS application tentatively selected by the random selection

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[28] *See, e.g.* 47 C.F.R. § 1.823 (1991).

[29] From informal discussions with the staff of the Domestic Radio Bureau, WCA understands there has been a reluctance to choose alternative tentative selectees in MDS lotteries because, in the staff's view, it would be required to recalculate lottery intervals after each tentative selectee is chosen in order to maintain identical probabilities of victory. That is not true, however. WCA proposes that lottery intervals be calculated once for each lottery. Should the chosen number in the second or subsequent round of any given lottery be assigned to an applicant who has previously been designated a tentative selectee or an alternate, then that number should be ignored and a new number drawn for the particular round. As is discussed in more detail in Exhibit A, the odds of any given applicant being selected under WCA's system are identical to those that would exist if the Commission calculated new intervals for each round.

process may be amended as a matter of right. Whether the Commission reduces pre-lottery screening or not, WCA certainly suggests that the Commission refrain from accepting any amendment after the fourteen day "as of right" period, except in exceptional circumstances. If the Commission adopts this approach, then the Domestic Radio Branch should be able to award a conditional license to the tentative selectee or one of the alternative tentative selectees within a month or so of any lottery.

C. The Interference Protection Rules Are Not Materially Slowing The Processing Of MDS Applications.

Quite frankly, WCA's concern with losing the technical flexibility the industry enjoys with current interference protection rules is heightened by its sense that those rules are not responsible for the processing logjam. Although it has been extremely difficult for WCA to gather information from the Commission, WCA believes that the backlog can be readily addressed and future backlogs avoided without gutting the interference protection rules that have worked so well for the industry.

For example, WCA understands that all 1983 applications have been entered into the Domestic Radio Branch's existing database, that all pending applications have been subjected to at least one lottery, and that those applications still pending are either awaiting re-lotterying because the original tentative selectee's application was subsequently dismissed or are the subject of non-technical petitions to deny. The task of making mutual exclusivity determinations or applying interference protection criteria is not causing the delays in processing. Rather, in most cases the delay is caused by a need

to address non-technical petitions to deny or petitions for reconsideration of the dismissal of the application of the initial tentative selectee. The legal issues raised by those petitions will have to be addressed regardless of whether new station-to-station rules or the current interference protection rules apply. Since all 1983 applications have already been grouped for purposes of conducting the initial lotteries, the switch to station-to-station separation standards has no benefit. To the contrary, adoption of the proposal advanced in the *NPRM* will cause substantially more paperwork for the staff to deal with, as applicants will be required to modify their proposals to bring them into compliance with new standards.[30] And, since 1983 applicants are not entitled to any co-channel or adjacent channel interference protection from one another,[31] the interference protection rules clearly have no impact except as they relate to protecting the relatively few ITFS facilities proposed prior to September 9, 1983. Historically, the Domestic Radio Branch staff has had little difficulty in conducting the few ITFS receive site analyses necessary to process the initial 1983 applications under the existing interference protection rules, and there is no reason to believe the task will be any more difficult once the remaining 1983 applications are ready for final processing. Indeed, the development of a computerized ITFS/MDS database, coupled with the possible combining of the ITFS and MDS processing staffs in a single unit, should expedite what is already a relatively speedy process.

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[30]*See NPRM, supra* note 1, at ¶ 12 n. 25.

[31]*See* 47 C.F.R. § 21.902(e) (1991).

Moreover, virtually all of the applications filed between the 1988 partial lifting of the freeze on new MMDS applications and the October 31, 1990 switch to "first come, first served" processing have been subject to lottery and the processing of tentative selectees is well underway. Since these MDS applications have already been grouped, lotteries held and processing has begun, most of these applications will already be processed to final disposition before final rules changing to a separation standard can be adopted.

Essentially, it is only the post-"first come, first served" applications that are pending that could even arguably be expedited by adopting simpler rules. However, determining mutual exclusivity among these applicants is not a material source of delay since (except in the obvious situation where an application mill files multiple applications for a single site on one day), the chances of two or more applications being filed on one day proposing systems that will interfere with each other are prohibitive. Rather, the problem is a delay in getting the applications into the database because of lack of appropriate personnel in the Domestic Radio Branch. Once a definitive database is developed by the staff in Gettysburg and made available to the processing staff, use of the current interference protection rules should not delay the processing of these applications.

D. Once The Application Mills Are Deterred, The Commission Should Be Able To Process MDS Applications In Timely Fashion Under The Current Interference Protection Rules.

As will be discussed in detail in Section III, WCA wholeheartedly supports the Commission's efforts to deter the filing of speculative MDS applications. If the Commission is successful in addressing the application mill problem, WCA submits that the timely processing of new applications can occur without either staff increases or radically modified interference protection rules.

This is not idle speculation on WCA's part, but rather is based on a comparison of ITFS and MDS processing. After all, the typical wireless cable system encompasses more ITFS channels than MDS channels, and the interference analyses associated with ITFS applications are more complex than those associated with MDS applications. Yet, the ITFS processing staff is of approximately the same size as the MDS processing staff. Despite the complexities of the ITFS interference protection rules and the greater workload imposed upon it for each wireless cable system under development, the ITFS processing staff has generally been able to process applications in timely fashion. Why? Because the ITFS has not seen anywhere near the number of speculative applications as the MDS.

Given the success of the ITFS processing staff in generally processing applications in timely fashion, WCA is convinced that the interference protection rules cannot be blamed for the MDS backlog. As the *NPRM* concludes, "with the curtailment of the number of speculative filings, which at present is believed to be prodigious, we anticipate the rate of incoming MDS applications to subside to an extent that will not

overstrain our resources."[32] That being the case, WCA is at a loss to understand why the Commission is proposing to adopt permanent interference protection rules that, even the *NPRM* acknowledges, lack the extremely beneficial flexibility inherent under the current rules.[33]

III. THE COMMISSION SHOULD ACT FORCEFULLY TO DETER THE FILING OF SPECULATIVE AND GREENMAIL APPLICATIONS.

A. The Commission Should Adopt The Proposals Advanced In WCA's Petition For Rulemaking To Stem The Tide Of Application Mill Generated Filings.

The Commission has already taken the first essential step towards mitigating the adverse impact of application mills on wireless cable operators. The emergence of the MDS application mills exacerbated what had always been a problem for those attempting to secure channel capacity for a wireless system -- the overfiling of applications. Simply put, for years there had been a small cadre of unscrupulous individuals who would monitor the Commission's public notices and, when the Commission announced that it had accepted an application for a new MDS station, would file a competing application within the cut-off period.[34] Needless to say, these

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[32]*NPRM*, *supra* note 1, at ¶ 17.

[33]*See id.* at ¶ 12.

[34]Indeed, the overfiling problem was the reason the Commission decided in 1983 to require all initial MMDS applications to be filed during a single week. *See Amendment of Parts 2, 21, 74 and 94 of the Commission's Rules and Regulations in regard to frequency allocation to the Instructional Television Fixed Service, the Multipoint Distribution Service, and the Private Operational-Fixed Service*, 94 F.C.C.2d 1203, 1265-66 (1983).

individuals never had any interest in actually developing a wireless cable system; they were merely looking to extort a financial settlement from the wireless cable operator that filed the initial application and need the authorization. As the application mills began to spring up, they too seized upon the opportunities presented by Commission rules permitting overfilings. Eventually, a situation developed where any MDS application appearing on public notice was virtually certain to be overfiled by mill-generated filings.

With the initial *Report and Order* in General Docket No. 90-54, the Commission took a major step towards eliminating the problems caused by the application mills. In that decision, the Commission amended Parts 1 and 21 so that, ever since the new rules became effective on October 31, 1990, an application in the MDS has been cut off from mutually exclusive applications at midnight of the day that the application is filed.[35] Those new rules have proven successful -- legitimate wireless system developers can now file necessary MDS applications free from the fear of over-filing.[36] Indeed, for a time "first come, first served" processing had a second salutary effect. Presumably because the application mills could no longer count on others to identify available markets, the number of MDS applications being filed plummeted for a time.

1. Barring Settlements Will Reduce The Number of Application Mill Generated Filings

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[35]*See Gen. Docket No. 90-54 R&O, supra* note 2, 5 FCC Rcd at 6424.

[36]Unfortunately, the same cannot be said of ITFS applications being filed in connection with the development of wireless cable systems. The sixty day ITFS cut-off period affords unscrupulous interests an opportunity to drum up competing interests and hold wireless cable operators hostage.

That Continue To Flood The Domestic Radio Branch.

While "first come, first served" day filing reduced significantly the number of applications being generated by the application mills for a few months, the mills soon were back in business. As WCA noted in its Petition for Rulemaking, "[l]ike cockroaches, the mills have proven remarkably adaptable to the measures designed to exterminate them."[37] Several application mills continue to peddle MDS applications, now representing to purchasers that they will file all of the mutually-exclusive applications sold for a given market on the same day, after which a settlement group will be formed to virtually assure each applicant an interest in the resulting license. Ironically, the new "first come, first served" processing system has inadvertently aided the mills in their marketing, for it provides them with an effective means for controlling the number of applications being filed for a market and improves their prospects for delivering a full market settlement.

As WCA demonstrated in its Petition for Rulemaking, there has been a tidal wave of mill-generated MDS applications in recent months. WCA conducted a detailed analysis of the publicly-available Commission records concerning MDS applications, and presented the Commission with undeniable evidence of an alarming trend that multiple

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[37]WCA Petition, *supra* note 16, at 8.

applications, identical in all material respects, were being generated by the application mills and filed on the same day.[38]

To deter this sort of activity, WCA petitioned the Commission to bar the formation of settlement groups formed to resolve mutually-exclusive applications submitted under the "first come, first served" processing rules.[39] Based on WCA's discussions with mill-generated applicants and reviews of the mills' marketing materials, their sales presentations and press reports,[40] it is clear that the possibility of settlement is driving most decisions to purchase MDS applications from the mills. Applicants are not buying a 100 to 1 longshot from the mills, they are buying a place in a settlement group. Eliminate settlements, WCA submits, and the Commission will eliminate much of the allure of MDS applications to the mill-generated applicant.

When the Commission first began in 1985 to utilize lotteries to select among mutually exclusive multichannel MDS applications, it chose to permit settlements among mutually exclusive applicants on the theory that "settlements are in the public

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[38]*See* WCA Petition, *supra* note 16, at 3.

[39]Because it is possible (albeit still unlikely) that mutually exclusive applications will be independently filed for two sites in proximity to each other, the Commission should not prevent applicants from entering into technical settlement agreements that result in each of the affected stations being licensed.

[40]*See* "Wireless Mill Assets Frozen," *supra* note 11; "Regulators Target Wireless Cable Mills," *supra* note 11, at 1.

interest, because they reduce or eliminate administrative burdens, delay and expenses."[41] That decision was typical of the Commission's views at the time. With 20/20 hindsight, however, it is clear that the Commission was wrong. Indeed, based on its subsequent experience with cellular application mills, the Commission has come to recognize that permitting settlements actually increases administrative burdens, delay and expenses by promoting the filing of applications designed merely to secure a spot in a settlement group. Not surprisingly, then, the Commission has effectively banned settlements among recent cellular applicants.[42]

Because the *NPRM* is ambiguous, WCA is gravely concerned that the Commission may be contemplating to continue accepting full market settlements in the MDS.[43] Although the *NPRM* is silent as to why the Commission would do such a thing, WCA is aware that in the cellular Rural Service Areas and fill-in areas, the Commission continues to permit full market settlements, although it has banned partial market

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[41]*Amendment of Parts 2, 21, 74 and 94 of the Commission's Rules and Regulations in regard to frequency allocation to the Instructional Television Fixed Service, the Multipoint Distribution Service, and the Private Operational-Fixed Service*, 50 Fed. Reg. 5983, 5989 (1985).

[42]*See, e.g. Amendment of the Commission's Rules for Rural Cellular Service*, 4 FCC Rcd 2440 (1988); *Amendment of Part 22 of the Commission's Rules to provide for filing and processing of applications for unserved areas in the Cellular Service and to modify other cellular rules*, FCC 91-306, at ¶¶ 84-85 (rel. Oct. 18, 1991)[hereinafter cited as "*Unserved Areas Order*"].

[43]*Compare NPRM, supra* note 1, at ¶ 20 ("We are also considering a proposal to bar all settlement agreements") *with* n. 14 ("we are considering rule changes that would prohibit partial settlements")(emphasis added).

settlements. WCA believes, however, that the present MDS situation is distinguishable and that no MDS settlements, whether full or partial, should be permitted.

While the Commission permits full market settlements in cellular, it does so because, given the vast number of mutually exclusive non-wireline applications being filed, "we do not anticipate that non-wireline applicants will realistically be able to effectuate full settlements."[44] By contrast, full market MDS settlements will certainly be possible under "first come, first served" processing where an application mill has coordinated the filing of multiple mutually-exclusive applications on the same day.

Because the cellular service employs pre-announced filing windows, it is a virtual certainty that truly independent mutually-exclusive applications will filed on the same day. It is at least arguable that in such a regulatory environment, affording independent applicants an opportunity to settle could actually expedite service to the public, even if the possibility of a full market settlement did attract some insincere applicants. However, that is not the case under the MDS "first come, first served" processing system, where there are no pre-announced filing windows. Rather, the one day filing window for a given authorization opens whenever the first application is filed. Although it is theoretically possible through happenstance that unrelated applicants will file mutually exclusive applications on the same day, the odds are certainly prohibitive. Common sense dictates that mutually exclusive applications filed on the very same day

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[44] *Amendment of the Commission's Rules for Rural Cellular Service*, 1 FCC Rcd 499 (1986).

will be the result of application mill coordination. Indeed, after reviewing the publicly available information, WCA has been unable to identify a single instance since the "first come, first served" rule went into effect where mutually exclusive applications were filed on the same day, except for instances of obvious collusion by an application mill. Clearly, while the possibility of a full market settlement continues to draw insincere MDS applicants, in a "first come, first served" environment there is no countervailing promotion of rapid service by legitimate applicants to justify permitting full market settlements.

For these reasons, WCA believes that if the Commission bans the formation of any settlement groups among filers of mutually-exclusive applications, it will take a significant step towards depriving application mills of the ability to assure applicants an interest in the license issued for a given market. That, in turn, will almost certainly reduce the number of speculative MDS applications being filed and enhance the ability of wireless cable operators to introduce new service rapidly.[45]

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[45]At least in theory, there is a risk that some of the application mills will form partnerships as the vehicle by which many individuals can secure an interest in the license for a given market. As recent enforcement actions by several states illustrate, the sale of such partnership interests will generally be subject to federal and state securities law, including their full disclosure requirements. From WCA's experience, it appears that application mills fear full disclosure like Dracula fears the sun, for most fully educated consumers will not risk scarce capital once they understand the speculative value of MMDS licenses. More importantly, if WCA's proposals are adopted, those that do will only be filing a single application for each authorization, minimizing the burden imposed on the staff.

2. The Commission Should Amend Sections 21.901(d)(2) and 21.901(f)(2) Now To Stop Cellular-Style Alliances Before They Develop.

As WCA detailed in its Petition for Rulemaking, barring settlement groups alone may not be enough. The individuals behind several of the application mills were charged with fraudulent marketing of cellular applications during the 1980s, and have seized on MDS applications as another vehicle for turning a quick dollar at the cost of an unsuspecting public. Even if the Commission bans settlement agreements, these mills may resuscitate one of their cellular marketing schemes -- the "alliance." In the most popular form of cellular alliance, members each retained their own application on file, but secured an interest of less than 1% in the applications of the other alliance members. Although Sections 21.901(d)(2) and 21.901(f)(2) of the Rules are not entirely clear, they could be interpreted to permit one person to hold more than a 1% interest in one E, F or H Group MDS application, and interests of less than 1% in untold other mutually-exclusive applications.

Section 21.901(d)(2) of the Rules provides that:

> Each applicant for facilities in the 2596-2644 MHz band may submit only a single application for the same channel group in each service area. The stockholders holding more than one percent of an entity's stock, the partners, the owners, the trustees, the beneficiaries, the officers, the directors, or any other person or entity holding a similar cognizable interest in one applicant for a service area and channel group, directly or indirectly, must not have a cognizable interest, directly or indirectly, in another applicant for the same service area and channel group. (emphasis added).

Section 21.901(f)(2) is identical, except that it applies to the H Group channels that were reallocated to the MDS in the *Second Report and Order* in General Docket No. 90-54.

The ambiguity arises because the Commission has never been called upon to interpret the underscored phrase, "cognizable interest," for purposes of the MDS. In a cellular-style alliance, each applicant retained at least a 50.1% interest in its own application, but transferred interests of less than 1% to each of the other alliance members in return for interests of less than 1% in each of their applications. Based on informal discussions with the Commission's staff, WCA understands that the "cognizable interest" language was intended to bar such activities in the MDS, an interpretation with which WCA agrees. As WCA interprets Sections 21.901(d)(2) and 21.901(f)(2), once an entity has a 1% or more interest in any application for a given market, it is barred from holding any cognizable interest -- even one of less than 1% -- in other applications for the same market.

WCA fears that unless Sections 21.901(d)(2) and 21.901(f)(2) are amended expressly to ban any person from holding any interest in multiple mutually-exclusive applications, the Commission may see the emergence of cellular-style MDS alliances and an influx of speculative applications (even if the Commission adopts WCA's proposal and traditional MDS settlement groups are banned). Once again, the Commission's handling of the alliance problem in the cellular service provides useful guidance. There, the Commission eliminated the rule permitting applicants to have a 1% interest in multiple applications after finding that "we are not persuaded that the 1% rule effectuates any

public purpose except to serve as a possible tool for abuses of our licensing processes."[46] A similar finding is appropriate here -- there is no public interest to be served by permitting any individual to have any attributable interest in multiple mutually-exclusive MDS applications.

For these reasons, WCA supports the proposal advanced in the *NPRM* to adopt the rule revisions advanced in WCA's Petition for Rulemaking. In addition, WCA supports the Commission's proposal to afford applicants fourteen days after the new rules become effective to divest any interests permitted under the current rules but barred under the new rules and to afford applicants adversely impacted by the rule change an opportunity to withdraw their applications and receive refunds of their filing fees.

B. The Commission Should Revise Its Filing Fees For MDS Applications To Deter Speculation.

The Commission's recent experience with the opening of the 220-222 MHz band has demonstrated that those who purchase applications from application mills are price sensitive and will steer away from services with relatively high Commission filing fees. WCA submits that the Commission should attempt to replicate with the MDS the success higher filing fees had in detering nationwide 220-222 MHz applications.

Under the Commission's current rules, an applicant for a new MDS conditional license is required to pay a filing fee of just $155.00 upon the filing of an application on FCC Form 494. An additional $455.00 filing fee per channel, or $1,820

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[46] *Amendment of the Commission's Rules for Rural Cellular Service*, 1 FCC Rcd 499 (1986); *Unserved Areas Order*, *supra* note 42, at ¶¶ 61-65.

per MMDS channel group, is required upon the submission of a Certification of Completion of Construction on FCC Form 494A. WCA has always found this approach passing strange. While the Commission's staff must do a good deal of work to process the FCC Form 494 application for a conditional license, little in the way of staff resources is devoted to the processing of a Form 494A. The fees, it seems, bear little relationship to the processing burden each type of application imposes on the Commission.

WCA submits, therefore, that the Commission can and should increase the filing fee for a FCC Form 494 application for a new MDS station to $455.00 per channel[47] and lower the filing fee associated with the submission of a Certification of Completion of Construction on FCC Form 494A to $155.00 per conditional license. Such a change will have no cost impact upon wireless cable operators who have a *bona fide* intention to construct and operate a new proposed facility -- they will still pay $1975.00 for each MMDS station when all is said and done. However, it may further deter speculative applications by increasing the up-front cost of applying for authority to construct a new facility. In addition, such a change will increase revenues for the government, since the number of applications for conditional licenses will always exceed the number of stations constructed.

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[47]WCA does not, however, advocate any increase in the filing fee for applications for authority to modify authorized facilities.

C. The Protected Service Area Must Be Redefined To Deter Speculative Applications.

Throughout General Docket No. 90-54, a major thrust of WCA's efforts has been to secure a revision in the definition of the protected service area ("PSA") definition set forth in Section 21.902(d) of the Rules.[48] As WCA explained in full in its still pending Petition for Partial Reconsideration in that proceeding, "the current PSA definition is a ticking time-bomb set to explode in the wireless industry's future."[49] To date, the Commission's temporary freezes on new MMDS applications have generally protected wireless cable operators from the inadequacy of the PSA definition.[50] Absent

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[48]*See, e.g.* Comments of The Wireless Cable Association, Inc., Gen. Docket No. 90-54, at 45-52 (filed May 7, 1990)[hereinafter cited as "WCA Comments"]; Petition of The Wireless Cable Association, Inc., Gen. Docket No. 90-54, at 2-7 (filed Dec. 3, 1990)[hereinafter cited as "WCA Petition for Reconsideration"].

[49]WCA Petition for Partial Reconsideration, *supra* note 4, at 2.

[50]Section 21.901(d)(4) of the Rules provides that MMDS applications may only be filed on dates specified by the Commission. When it created the MMDS, the Commission set a single date in September 1983 as the due date for the initial round of applications. *See Amendment of Parts 2, 21, 74 and 94 of the Commission's Rules and Regulations in Regard to Frequency Allocation to the Instructional Television Fixed Service, the Multipoint Distribution Service, and the Private Operational Fixed Microwave Service*, 94 F.C.C.2d 1203, 1266 (1983). On April 20, 1988, the Commission lifted the absolute freeze in part, permitting applications for new stations so long as those new stations are located at least 50 miles from any station proposed prior to April 19, 1988 and at least 15 miles from the boundary of any Metropolitan Statistical Area or Consolidated Metropolitan Statistical Area for which a station was proposed prior to April 19, 1988. *See* "Common Carrier Bureau Opens Filing Period for Multichannel Multipoint Distribution Service Applications," *Public Notice*, 3 FCC Rcd 2661 (1988). And, of course, the *NPRM* adopted a total freeze on applications for new MDS stations. *See NPRM, supra* note 1, at ¶ 19.

the freezes, the only protection a wireless cable system operator has to protect its subscriber base against harmful interference is the PSA definition -- a definition that is woefully inadequate.

Proper resolution of the PSA definition issue either here or in General Docket No. 90-54 is critical to detering speculative applications. If the Commission retains rules that will permit MDS stations to be located too close together in the post-freeze era, operators will have to choose between the Scylla and Charybdis of accepting destructive electrical interference at subscribers' residences or buying out licensees of closely spaced stations. Retention of the existing PSA definition in the post-freeze era will be a field day for the unscrupulous. Already, a few such entities are abusing the ITFS interference protection rules (which incorporate the PSA concept) and are proposing stations that appear to have no other purpose than to frustrate the ability of wireless cable systems in adjacent communities to add ITFS stations to their systems. In other cases, application mills have flooded the Commission with applications that seek waivers of the filing freeze in order to file applications for closely-spaced stations. Clearly, the word is out that the MDS and ITFS interference protection rules permit economic blackmail; if these and similar applications are granted the legitimate wireless cable operator will have to reach an accommodation if it is to continue providing a viable service to the public.

In defining the boundaries for the PSA, the Commission's policy goal has been to set limits coterminous with "that area in which reliable service is available to the

majority of receiver locations within the area."[51] Make no mistake -- WCA fully agrees with that approach to defining the PSA. Indeed, the focus of WCA's campaign for a redefined PSA has been on the dramatic technological developments in reception equipment technology that have occurred since the current PSA definition was first proposed more than a decade ago. As compared with the situation in 1980, far less signal is necessary at the antenna input to produce an acceptable picture, effectively increasing the size of the area in which reliable service can be provided.[52] And, wireless cable systems are generally operating at significantly greater power levels than was the case in the early 1980s.

To quantify the extent to which wireless cable operators are capable of serving subscribers beyond their PSA, WCA presented the Commission in General Docket No. 90-54 with the results of an extensive survey of operating wireless cable systems.[53] The results illustrate the extent to which the PSA definition has become obsolete. Fully 59% of the systems responding to WCA's survey indicated that more than 50% of their current subscribers are located more than 15 miles from the

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[51]*Amendment of Parts 21, 74 and 94 of the Commission's Rules and Regulations with Regard to Technical Requirements Applicable to the Multipoint Distribution Service, the Instructional Television Fixed Service and the Private Operational-Fixed Microwave Service (OFS)*, 98 F.C.C.2d 68, 87 (1984)[hereinafter cited as "*80-113 FR&O*"].

[52]As a result of improvements in the state of the art, wireless cable downconverters now introduce far less noise than they did in 1980. Moreover, inexpensive signal preamplifiers have been developed for installation at receive sites.

[53]WCA Petition for Partial Reconsideration, *supra* note 4, at 5.

transmission headend. The median is that 57.5% of wireless subscribers reside outside the PSA of the station serving them. Clearly, any relationship between the PSA definition and the area in which wireless cable systems provide reliable service is long gone.

The current PSA boundary was first proposed by the Commission in a *Notice of Inquiry and Proposed Rulemaking* adopted on March 19, 1980 in General Docket No. 80-113.[54] As is explained in detail in that document, the fifteen mile PSA radius for omnidirectional antennas was derived by the Commission first by ascertaining that a 23 dB faded signal to noise ("S/N") ratio at a television set's antenna terminals is required to produce an adequate picture and then by calculating that a "typical" MDS station operating with 10 watts transmitter power output and an omnidirectional antenna with a 13 dB gain would yield a signal with a faded S/N ratio of 23 dB fifteen miles away.

With the passage of time, it has become evident that the resulting rules, codified in Section 21.902(d), are inherently flawed. As noted above, they are based on technology that is now obsolete -- a faded S/N ratio of 23 dB is now available well beyond fifteen miles for even the "typical" MDS station. And, since the Commission in Gen. Docket No. 90-54 increased the maximum transmitter output power at which MDS

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[54]*See Amendment of Parts 21, 74 and 94 of the Commission Rules and Regulations With Regard to Technical Requirements Applicable to the Multipoint Distribution Service, the Instructional Television Fixed Service and the Private Operational-Fixed Microwave Service (OFS)*, 45 Fed. Reg. 29,350 (May 2, 1980)[hereinafter cited as "*80-113 NOI/NPRM*").

stations can readily operate,[55] most wireless cable systems are being designed to operate with a transmitter output power in excess of the ten watt level that was standard when the current fifteen mile PSA was formulated. Thus, a faded S/N ratio of 23 dB is being provided by wireless cable operators to subscribers located well beyond the current PSA boundaries.[56] As a result, the many stations that transmit a quality signal farther than the "typical" station are denied protection of service to subscribers.

WCA has proposed in its pleading Petition for Partial Reconsideration in General Docket No. 90-54 an approach that more closely tailors the protected service area boundary to the service capabilities of each station, without introducing undue complexity. Simply stated, WCA proposed that the protected service area boundary for each station that transmits omnidirectionally be set at a fixed mileage (subject to the particular radio horizon of the station as set forth in Section 21.902(d)(3)), with the length of the radius dependent upon the EIRP at which the station radiates. For those stations transmitting non-omnidirectionally, WCA would set the boundary along each radial depending upon the EIRP transmitted along that radial. The specific radius for

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[55]*See Gen. Docket No. 90-54 R&O, supra* note 2, 5 FCC Rcd at 6418-19.

[56]Indeed, no station could ever possibly meet precisely the parameters utilized since the Commission made no allowance at all for the inevitable line and connector losses between the output of the transmitter and the input of the transmission antenna. Thus, while the Commission assume that stations operating at 10 watts TPO and a 13 dB gain antenna would transmit with an EIRP of 23 dBW, most stations utilizing that equipment actually transmit with an EIRP of 19-21 dBW as a result of the unavoidable line and connector losses.

each level of EIRP is set forth in the following table, which WCA proposed be incorporated into Section 21.902.

EIRP Along Radial (dBW)	Distance to Boundary (Miles from Station)	EIRP Along Radial (dBW)	Distance to Boundary (Miles from Station)
0	7.2	20	18.0
1	7.5	21	19.0
2	7.9	22	20.0
3	8.3	23	21.0
4	8.7	24	22.0
5	9.1	25	23.0
6	9.5	26	24.0
7	10.0	27	25.0
8	10.5	28	26.0
9	11.0	29	27.0
10	11.5	30	28.5
11	12.0	31	29.5
12	12.5	32	31.0
13	13.0	33	32.5
14	13.5	34	34.0
15	14.5	35	35.5
16	15.0	36	37.5
17	15.5	37	39.5
18	16.5	38	41.5
19	17.0	39	44.0

These specific radii were derived in the same fashion that the Commission first derived the fifteen mile protected service area boundary in the *Notice of Inquiry and Proposed Rulemaking* in General Docket No. 80-113 -- WCA calculated the distance at which a station transmitting at the given EIRP would yield at faded S/N ratio of 23 dB.

In its Petition for Partial Reconsideration, WCA provided the Commission of an extensive discussion of the public interest benefits to be derived from adoption of its proposed PSA definition. In the interest of brevity, WCA will refrain from repeating

that entire discussion here. However, the Commission should note two significant benefits that relate directly to the subject matter of this proceeding -- the expediting of MDS application processing.

First, enlarging the PSA so that it adequately protects a wireless cable systems subscribers will frustrate those inclined to file greenmail applications. Obviously, if the PSA provides adequate protection, it will be impossible for a greenmailer to propose a closely-spaced station that, while meeting the FCC's interference protection benchmarks, could cause actual electrical interference at subscribers' residences. The net result of frustrating greenmail applications will be to reduce the number of MDS applications, thus freeing staff resources to process *bona fide* MDS applications more rapidly.

Second, WCA's approach will be remarkably simple to employ. The EIRP at which each station transmits along a given azimuth is easily determined from the application for that station, and, once determined, the table proposed by WCA identifies precisely the protected service area boundary. Indeed, WCA's proposal will greatly simplify the process of determining the protected service area for stations utilizing non-omnidirectional transmission antennas. Under the formula set out in current Section 21.902(d)(2) of the Rules, it is extremely difficult to calculate with precision the protected service area for stations that do not transmit with the same EIRP in every direction. Reasonable engineers have frequently disagreed over the determination of PSA boundaries for non-omnidirectional systems, resulting in unnecessary disputes. WCA's

approach, however, specifies a precise radius for each azimuth based on the EIRP level along that azimuth. Since it is not difficult to calculate the EIRP of a non-omnidirectional antenna along any given azimuth -- indeed, the Commission recently requested that each ITFS licensee submit such information -- the task of calculating the protected service for stations that transmit with a non-omnidirectional antennas will be greatly simplified under WCA's proposal.

Finally, the Commission should note that WCA has proposed clear, concise policies to address the transition to new PSA rules. As WCA stated:

> The Commission should clearly establish a transitional process should it adopt a revised protected service area definition. Specifically, in order to simplify the transition and avoid the need for amendments to existing applications filed in reliance on the current rules, the Commission should only require that applications for new stations or major modifications filed after the effective date of the new rules comply with the new protected service area rules. Thus, while all stations will enjoy the benefit of the new rules with respect to applications submitted after the effective date of new rules, no applicant under the current rules will be disadvantaged. For example, if Applicant A has on file on the effective date of new rules a proposal that causes no interference to Station B under the existing rules, but would interfere with the protected service area afforded Station B under WCA's proposal, Applicant A's application should still be grantable. However, if Applicant C files after the new rules become applicable, it should have to protect the new service areas for Applicant A and Station B.[57]

In addition, to protect the ability of applicants and licensees grandfathered under the old rules to amend their applications or modify their licenses to reduce, but not

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[57]WCA Petition for Reconsideration, *supra* note 48, at 5 n. 10.

necessarily eliminate, interference, WCA suggested the Commission amend Section 21.902(d) by adding the following at the conclusion thereof:

> (4) Where a station must accept harmful interference from another station pursuant to subsection (e) hereof, in any analysis of the potential for interference from the interfering station to the interfered-with station submitted with an amendment to the application for the interfering station or with an application for a modification of the license for the interfering station, the protected service area for the interfered-with station shall be reduced in size by eliminating any area(s) in which interference from the most recently authorized design of the interfering station is predicted.

This revision is consistent not only with the Commission's previous commitment to permit interference-reducing reconfigurations,[58] but also with the Commission's approach to an analogous problem involving single channel MDS.[59]

In short, adoption of WCA's proposed revisions to the Commission's PSA definition will significantly benefit both the Commission (by reducing the number of greenmail applications being submitted) and the legitimate wireless cable operator (by closely tailoring the wireless cable operator's protected service area to the area it can actually serve).

> *D. The Commission Should Reconsider Its Proposal To Revise The Rules Governing The Assignment Of MDS Applications And Conditional Licenses And The Transfer Of Control Of MDS Applicants And Conditional Licensees.*

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[58] *See Gen. Docket No. 90-54 R&O supra* note 2, 5 FCC Rcd at 6412-13.

[59] *80-113 FR&O, supra* note 51, 98 F.C.C.2d at 111.